

REMARKS

Claims 1-7 are presently pending in the application. In the present paper, no amendments are being made. Reconsideration of the claim rejections is respectfully requested in view of the following argument.

Claim Rejections – 35 U.S.C. §103(a)

Claim 1 stands finally rejected under Section 103(a) as unpatentable over Thompson et al. U.S. Patent No. 6,282,005 (“Thompson”). Dependent claims 2-6 stand finally rejected as being unpatentable over Thompson in view of Lam U.S. Patent No. 6,721,506 (“Lam”). Claim 7 stands finally rejected as being unpatentable over Thompson in view of Lam and further in view of Lu et al. U.S. Patent No. 5,880,865 (“Lu”). Applicants respectfully request reconsideration of these rejections in view of the following comments.

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. M.P.E.P. § 2143.03 (*citing In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)).

As previously emphasized, the method of claim 1 requires the following step:

modulating *each of the plurality of optical bands* with a *composite signal representing data in a plurality of independent RF blocks* to form a plurality of modulated signals.

The Examiner continues to assert that Thompson suggests the step of:

modulating each of the plurality optical bands with a composite signal representing data (i.e., INFORMATION 1, INFORMATION 2, ..., INFORMATION N) by modulators 160, 162, 164 to form a plurality of modulated signals (col. 11, lines 28-30).

Office Action page 2, ¶2.

The Examiner further contends that Thompson differs from claim 1 in that Fig. 4 of Thompson shows RF information blocks that may be substituted for the INFORMATION blocks shown in Fig. 5, which is the embodiment cited against claim 1.

Claim 1 requires that each optical band be modulated with a composite signal representing data in a plurality of independent RF blocks. As shown in Fig. 2b and described in paragraph [26] of the application, a plurality of *independent RF blocks* (subcarriers) are combined to produce composite signals RF_i . Each composite signal RF_i represents a vertical stack of independent RF blocks as shown in Fig. 1. This composite signal RF_i is utilized to modulate *each optical band*. Thompson does not teach or suggest this practice.

With reference to Fig. 4 of Thompson, *a single block* of INFORMATION modulates each optical band. Similarly, Fig. 5 depicts *a single block* of RF INFORMATION that modulates each optical band $\lambda_0, \lambda_1, \dots, \lambda_N$. Nowhere does Thompson teach or suggest that *each* block of INFORMATION in Fig. 4, or RF INFORMATION in Fig. 5, constitutes a composite signal that represents data *in a plurality of independent RF blocks*. Thus, even if, as proposed by the Examiner, one substitutes the INFORMATION 1, INFORMATION 2, ..., INFORMATION N blocks shown in Fig. 4 with the RF INFORMATION 1, RF INFORMATION 2, ..., RF INFORMATION N blocks of Fig. 5, such an arrangement still does not disclose or suggest the claimed invention.

In view of the foregoing, it is respectfully submitted that independent claim 1 is patentable over Thompson. Dependent claims 2-7, which incorporate the limitations of claim 1, are believed to be patentable for at least the same reasons as claim 1.

Furthermore, with regard to dependent claims 3-6, Applicants submit that Lam does not disclose the step of selecting a stack of RF blocks using an optical filter matched to *one of the*

first WDM's optical bands at a user site. Lam discloses that "every user node obtains a slice of a transmitted spectrum albeit at different wavelengths, thereby achieving broadcast service delivery." See Col. 4, lines 28-30. Thus, Lam does not teach or suggest filtering a single optical band at a user site to select a stack of RF blocks from that band. In accordance with the teachings of Lam, *each user* receives broadcast services carried on *multiple optical bands* (wavelengths). From this group of bands, the filter separates data for particular services (i.e., RF blocks) for the user. Thus, in Lam a plurality of RF blocks can be thought of modulating different optical bands. This is clearly distinguishable from the claimed invention, and additionally fails to remedy the deficiencies in the disclosure of Thompson. For these reasons, it is respectfully submitted that claims 3 and 4 are patentable over the combination of Thompson and Lam.

Regarding dependent claim 5, Applicants additionally submit that Lam does not teach or suggest a combined broadcast signal that is passively split and introduced to a WGR on *a plurality of input ports at a remote node*. Figure 15, cited by the Examiner, shows a broadcast signal that is applied to a single input port of a WGR at a user node.


Conclusion

In view of the foregoing, Applicants respectfully submit that claims 1-7 are now in condition for allowance, and earnestly request that the Examiner issue a Notice of Allowance.

Should the Examiner have any questions regarding the present case, the Examiner should not hesitate in contacting the undersigned at the number provided below.

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Respectfully submitted,

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